

CLAIMS

What is claimed is:

- 5 1. A web access mechanism embedded in a device,
 comprising:

 web server that generates a device web page
 wherein the device web page provides a set of user
 interface functions for the device;

- 10 network interface that enables access to the
 device web page by a web browser such that a user of
 the web browser accesses the user interface functions
 for the device through the device web page.

- 15 2. The web access mechanism of claim 1, wherein the
 web server receives an HTTP command via the network
 interface and then generates an HTML file that
 defines the device web page in response to the HTTP
 command.

- 20 3. The web access mechanism of claim 2, wherein the
 HTTP command specifies a URL corresponding to the
 device.

- 25 4. The web access mechanism of claim 3, wherein the
 HTML file contains a set of information pertaining to
 the device.

5. The web access mechanism of claim 3, wherein the HTML file contains a set of URLs that control a set of predetermined functions for the device wherein each URL may point to a web page located internal to the device or a web page located external to the device.

6. The web access mechanism of claim 3, wherein the HTML file contains a hyperlink to an external web page that specifies additional information pertaining to the device.

7. A device, comprising:
processor that generates a device web page
wherein the device web page provides a set of user interface functions for the device and includes a set of information pertaining to the device;
memory for storing the device web page;
input/output circuitry that enables
communication via a communication path such that a web browser accesses the device web page via the communication path.

8. The device of claim 7, wherein the processor receives an HTTP command via the input/output circuitry and then generates an HTML file that defines the device web page in response to the HTTP command.

9. The device of claim 8, wherein the HTTP command specifies a URL corresponding to the device.

5 10. The device of claim 8, wherein the HTML file contains a set of URLs that control a set of predetermined functions for the device wherein each URL may point to a web page located internal to the device or a web page located external to the device.

10 11. The device of claim 8, wherein the HTML file defines a set of graphical mechanisms for controlling a set of predetermined functions for the device.

15 12. The device of claim 8, wherein the HTML file contains a hyperlink to an external web page that specifies additional information pertaining to the device.

20 13. A user interface method for a device, comprising the steps of:

generating a device web page within the device wherein the device web page provides a set of user interface functions for the device;

25 providing access to the device web page from a web browser external to the device such that a user of the web browser accesses the user interface functions for the device through the device web page.

14. The method of claim 13, wherein the step of generating a device web page includes the step of generating an HTML file that defines the device web page in response to an HTTP command received from the web browser.

15. The method of claim 14, wherein the HTTP command specifies a URL corresponding to the device.

16. The method of claim 14, wherein the HTML file contains a set of information pertaining to the device.

17. The method of claim 14, wherein the HTML file contains a set of URLs that control a set of predetermined functions for the device wherein each URL may point to a web page located internal to the device or a web page located external to the device.

18. The method of claim 14, wherein the HTML file contains a hyperlink to an external web page that specifies additional information pertaining to the device.

19. A user interface apparatus embedded in a device, comprising:

means for generating a device web page within the device wherein the device web page provides a set of user interface functions for the device;

means for providing access to the device web
5 page from a web browser external to the device such that a user of the web browser accesses the user interface functions for the device through the device web page.

10 20. The apparatus of claim 19, wherein the means for generating a device web page includes means for generating an HTML file that defines the device web page in response to an HTTP command generated by the web browser.

15 21. The apparatus of claim 20, wherein the HTTP command specifies a URL corresponding to the device.

20 22. The apparatus of claim 20, wherein the HTML file contains a set of information pertaining to the device.

25 23. The apparatus of claim 20, wherein the HTML file contains a set of URLs that control a set of predetermined functions for the device wherein each URL may point to a web page located internal to the device or a web page located external to the device.

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24. The apparatus of claim 20, wherein the HTML file contains a hyperlink to an external web page that specifies additional information pertaining to the device.

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25. A system, comprising:

device having an embedded web server that generates a device web page wherein the device web page provides a set of user interface functions for the device and includes a set of information pertaining to the device, the device also having a network interface that enables access to the device web page via a communication network;

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web browser coupled to the communication network wherein a user of the web browser accesses the user interface functions for the device through the device web page.

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26. The system of claim 25, wherein the web server in the device receives an HTTP command via the communication network and the network interface and then generates an HTML file that defines the device web page in response to the HTTP command.

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27. The system of claim 26, wherein the HTTP command specifies a URL corresponding to the device.

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28. The system of claim 26, wherein the HTML file contains a set of URLs that control a set of predetermined functions for the device such that the user of the web browser selects the URLs to control the predetermined functions of the device wherein each URL may point to a web page located internal to the device or a web page located external to the device.

29. The system of claim 26, wherein the HTML file contains a hyperlink to an external web page located elsewhere on the communication network that specifies additional information pertaining to the device.

30. The system of claim 25, wherein the communication network comprises a home-based communication network.

31. The system of claim 25, wherein the communication network comprises a large-organization communication network.

32. The system of claim 25, wherein the communication network comprises the world wide web of the Internet.

IN THE CLAIMS

Please cancel claims 1-32 without prejudice.

Please add the following claims:

33. (New) A system for providing a web page for a copier, comprising:
- (a) a copier web server mechanism, including:
 - a web server that generates a copier web page which enables control functions for the copier, the web server being embedded in the copier;
 - a network interface embedded in the copier and coupled to the web server;
 - a monitor embedded in the copier and coupled to the web server, wherein the monitor controls device-specific functions of the copier and monitors a set of information pertaining to the copier; and
 - a control/monitor path coupled to the monitor;
 - (b) a communication path coupled to the network interface; and
 - (c) a web browser coupled to the communication path for rendering the copier web page.
34. (New) The system of claim 33 wherein the communication path is a home-based network.
35. (New) The system of claim 33 wherein the communication path is a home-based network, and wherein home-based network includes twisted pair communication links.

36. (New) The system of claim 33 wherein the communication path is a local area network.
37. (New) The system of claim 33 wherein the communication path includes power line communication links.
38. (New) The system of claim 33 wherein the communication path includes radio frequency communication links.
39. (New) The system of claim 33 wherein the communication path includes infrared communication links.
40. (New) The system of claim 33 wherein the communication path includes telephone lines and cellular telephone links.
41. (New) The system of claim 33 wherein the communication path includes serial communication links.
42. (New) The system of claim 33 wherein the communication path includes parallel communication links.
43. (New) The system of claim 33 wherein the communication path is a direct Internet connection to the world-wide web.
44. (New) The system of claim 33 wherein the communication path includes:
a local area network;
a communication bridge coupled to the local area network; and

the world-wide web, the world-wide web being coupled to the communication bridge.

45. (New) The system of claim 33 wherein the communication path includes:
a home-based network;
a communication bridge coupled to the home-based network; and
the world-wide web, the world-wide web being coupled to the communication bridge.

46. (New) The system of claim 33 wherein the web browser has audio capability.

47. (New) The system of claim 33 wherein the web browser is embodied in a computer system that executes a set of web browser software.

48. (New) The system of claim 33 wherein the web browser is embodied in specialized television hardware.

49. (New) The system of claim 33 wherein the web browser is embodied in specialized telephone system hardware.

50. (New) A system for providing a web page for a printer, comprising:
(a) a printer web server mechanism, including:
a web server that generates a printer web page which enables control functions for the printer, the web server being embedded in the printer;
a network interface embedded in the printer and coupled to the web server;

a monitor embedded in the printer and coupled to the web server, wherein the monitor controls device-specific functions of the printer and monitors a set of information pertaining to the printer; and

a control/monitor path coupled to the monitor;

(b) a communication path coupled to the network interface; and

(c) a web browser coupled to the communication path for rendering the printer web page.

51. (New) The system of claim 50 wherein the communication path is a home-based network.

52. (New) The system of claim 50 wherein the communication path is a home-based network, and wherein home-based network includes twisted pair communication links.

53. (New) The system of claim 50 wherein the communication path is a local area network.

54. (New) The system of claim 50 wherein the communication path includes power line communication links.

55. (New) The system of claim 50 wherein the communication path includes radio frequency communication links.

56. (New) The system of claim 50 wherein the communication path includes infrared communication links.

57. (New) The system of claim 50 wherein the communication path includes telephone lines and cellular telephone links.
58. (New) The system of claim 50 wherein the communication path is a direct Internet connection to the world-wide web.
59. (New) The system of claim 50 wherein the web browser is embodied in specialized television hardware.
60. (New) The system of claim 50 wherein the web browser is embodied in specialized telephone system hardware.
61. (New) A system for providing a web page for a fax machine, comprising:
 - (a) a fax machine web server mechanism, including:
 - a web server that generates a fax machine web page which enables control functions for the fax machine, the web server being embedded in the fax machine;
 - a network interface embedded in the fax machine and coupled to the web server;
 - a monitor embedded in the fax machine and coupled to the web server, wherein the monitor controls device-specific functions of the fax machine and monitors a set of information pertaining to the fax machine;
 - and
 - a control/monitor path coupled to the monitor;
 - (b) a communication path coupled to the network interface; and
 - (c) a web browser coupled to the communication path for rendering the fax machine web page.

62. (New) The system of claim 61 wherein the communication path is a home-based network.

63. (New) The system of claim 61 wherein the communication path is a home-based network, and wherein home-based network includes twisted pair communication links.

64. (New) The system of claim 61 wherein the communication path is a local area network.

65. (New) The system of claim 61 wherein the communication path includes power line communication links.

66. (New) The system of claim 61 wherein the communication path includes radio frequency communication links.

67. (New) The system of claim 61 wherein the communication path includes infrared communication links.

68. (New) The system of claim 61 wherein the communication path includes telephone lines and cellular telephone links.

69. (New) The system of claim 61 wherein the communication path is a direct Internet connection to the world-wide web.

70. (New) The system of claim 61 wherein the web browser is embodied in specialized television hardware.

71. (New) The system of claim 61 wherein the web browser is embodied in specialized telephone system hardware.

72. (New) A system for providing a web page for a video player that reads video and audio information from a storage medium, comprising:

(a) a video player web server mechanism, including:

a web server that generates a video player web page which enables control functions for the video player, the web server being embedded in the video player;

a network interface embedded in the video player and coupled to the web server;

a monitor embedded in the video player and coupled to the web server, wherein the monitor controls device-specific functions of the video player and monitors a set of information pertaining to the video player; and

a control/monitor path coupled to the monitor;

(b) a communication path coupled to the network interface; and

(c) a web browser coupled to the communication path for rendering the video player web page.

73. (New) The system of claim 72 wherein the storage medium is an optical storage medium.

74. (New) The system of claim 72 wherein the storage medium is magnetic tape.

75. (New) The system of claim 72 wherein the video player is a video player/recorder that reads and writes video and audio information to an optical storage medium.
76. (New) The system of claim 72 wherein the video player is a video player/recorder that reads and writes video and audio information to a magnetic tape storage medium.
77. (New) The system of claim 72 wherein the communication path is a home-based network.
78. (New) The system of claim 72 wherein the communication path is a home-based network, and wherein home-based network includes twisted pair communication links.
79. (New) The system of claim 72 wherein the communication path is a local area network.
80. (New) The system of claim 72 wherein the communication path includes power line communication links.
81. (New) The system of claim 72 wherein the communication path includes radio frequency communication links.
82. (New) The system of claim 72 wherein the communication path includes infrared communication links.

83. (New) The system of claim 72 wherein the communication path includes telephone lines and cellular telephone links.

84. (New) The system of claim 72 wherein the communication path is a direct Internet connection to the world-wide web.

85. (New) The system of claim 72 wherein the web browser is embodied in specialized television hardware.

86. (New) The system of claim 72 wherein the web browser is embodied in specialized telephone system hardware.

87. (New) A system for providing a web page for a television, comprising:

(a) a television web server mechanism, including:

a web server that generates a television web page which enables control functions for the television, the web server being embedded in the television;

a network interface embedded in the television and coupled to the web server;

a monitor embedded in the television and coupled to the web server, wherein the monitor controls device-specific functions of the television and monitors a set of information pertaining to the television; and

a control/monitor path coupled to the monitor;

(b) a communication path coupled to the network interface; and

(c) a web browser coupled to the communication path for rendering the television web page.

88. (New) The system of claim 87 wherein the communication path is a home-based network.

89. (New) The system of claim 87 wherein the communication path is a home-based network, and wherein home-based network includes twisted pair communication links.

90. (New) The system of claim 87 wherein the communication path is a local area network.

91. (New) The system of claim 87 wherein the communication path includes power line communication links.

92. (New) The system of claim 87 wherein the communication path includes radio frequency communication links.

93. (New) The system of claim 87 wherein the communication path includes infrared communication links.

94. (New) The system of claim 87 wherein the communication path includes telephone lines and cellular telephone links.

95. (New) The system of claim 87 wherein the communication path is a direct Internet connection to the world-wide web.

96. (New) The system of claim 87 wherein the web browser is embodied in specialized television hardware.

97. (New) The system of claim 87 wherein the web browser is embodied in specialized telephone system hardware.

98. (New) A system for providing a web page for a thermostat, comprising:

(a) a thermostat web server mechanism, including:

a web server that generates a thermostat web page which enables control functions for the thermostat, the web server being embedded in the thermostat;

a network interface embedded in the thermostat and coupled to the web server;

a monitor embedded in the thermostat and coupled to the web server, wherein the monitor controls device-specific functions of the thermostat and monitors a set of information pertaining to the thermostat; and

a control/monitor path coupled to the monitor;

(b) a communication path coupled to the network interface; and

(c) a web browser coupled to the communication path for rendering the thermostat web page.

99. (New) The system of claim 98 wherein the communication path is a home-based network.

100. (New) The system of claim 98 wherein the communication path is a home-based network, and wherein home-based network includes twisted pair communication links.

101. (New) The system of claim 98 wherein the communication path is a local area network.

102. (New) The system of claim 98 wherein the communication path includes power line communication links.

103. (New) The system of claim 98 wherein the communication path includes radio frequency communication links.

104. (New) The system of claim 98 wherein the communication path includes infrared communication links.

105. (New) The system of claim 98 wherein the communication path includes telephone lines and cellular telephone links.

106. (New) The system of claim 98 wherein the communication path is a direct Internet connection to the world-wide web.

107. (New) The system of claim 98 wherein the web browser is embodied in specialized television hardware.

108. (New) The system of claim 98 wherein the web browser is embodied in specialized telephone system hardware.

109. (New) A system for providing a web page for a refrigerator, comprising:
 (a) a refrigerator web server mechanism, including:

a web server that generates a refrigerator web page which enables control functions for the refrigerator, the web server being embedded in the refrigerator;

a network interface embedded in the refrigerator and coupled to the web server;

a monitor embedded in the refrigerator and coupled to the web server, wherein the monitor controls device-specific functions of the refrigerator and monitors a set of information pertaining to the refrigerator; and

a control/monitor path coupled to the monitor;

(b) a communication path coupled to the network interface; and

(c) a web browser coupled to the communication path for rendering the refrigerator web page.

110. (New) The system of claim 109 wherein the communication path is a home-based network.

111. (New) The system of claim 109 wherein the communication path is a home-based network, and wherein home-based network includes twisted pair communication links.

112. (New) The system of claim 109 wherein the communication path is a local area network.

113. (New) The system of claim 109 wherein the communication path includes power line communication links.

114. (New) The system of claim 109 wherein the communication path includes radio frequency communication links.

115. (New) The system of claim 109 wherein the communication path includes infrared communication links.

116. (New) The system of claim 109 wherein the communication path includes telephone lines and cellular telephone links.

117. (New) The system of claim 109 wherein the communication path is a direct Internet connection to the world-wide web.

118. (New) The system of claim 109 wherein the web browser is embodied in specialized television hardware.

119. (New) The system of claim 109 wherein the web browser is embodied in specialized telephone system hardware.

120. (New) A system for providing a web page for a washing machine, comprising:

(a) a washing machine web server mechanism, including:

a web server that generates a washing machine web page which enables control functions for the washing machine, the web server being embedded in the washing machine;

a network interface embedded in the washing machine and coupled to the web server;

a monitor embedded in the washing machine and coupled to the web server, wherein the monitor controls device-specific functions of the washing machine and monitors a set of information pertaining to the washing machine; and

a control/monitor path coupled to the monitor;

(b) a communication path coupled to the network interface; and

(c) a web browser coupled to the communication path for rendering the washing machine web page.

121. (New) The system of claim 120 wherein the communication path is a home-based network.

122. (New) The system of claim 120 wherein the communication path is a home-based network, and wherein home-based network includes twisted pair communication links.

123. (New) The system of claim 120 wherein the communication path is a local area network.

124. (New) The system of claim 120 wherein the communication path includes power line communication links.

125. (New) The system of claim 120 wherein the communication path includes radio frequency communication links.

126. (New) The system of claim 120 wherein the communication path includes infrared communication links.

127. (New) The system of claim 120 wherein the communication path includes telephone lines and cellular telephone links.

128. (New) The system of claim 120 wherein the communication path is a direct Internet connection to the world-wide web.

129. (New) The system of claim 120 wherein the web browser is embodied in specialized television hardware.

130. (New) The system of claim 120 wherein the web browser is embodied in specialized telephone system hardware.

131. (New) A system for providing a web page for a disk drive, comprising:

(a) a disk drive web server mechanism, including:

a web server that generates a disk drive web page which enables control functions for the disk drive, the web server being embedded in the disk drive;

a network interface embedded in the disk drive and coupled to the web server;

a monitor embedded in the disk drive and coupled to the web server, wherein the monitor controls device-specific functions of the disk drive and monitors a set of information pertaining to the disk drive; and

a control/monitor path coupled to the monitor;

(b) a communication path coupled to the network interface; and

(c) a web browser coupled to the communication path for rendering the disk drive web page.

132. (New) The system of claim 131 wherein the communication path is a home-based network.

133. (New) The system of claim 131 wherein the communication path is a home-based network, and wherein home-based network includes twisted pair communication links.

134. (New) The system of claim 131 wherein the communication path is a local area network.

135. (New) The system of claim 131 wherein the communication path includes power line communication links.

136. (New) The system of claim 131 wherein the communication path includes radio frequency communication links.

137. (New) The system of claim 131 wherein the communication path includes infrared communication links.

138. (New) The system of claim 131 wherein the communication path includes telephone lines and cellular telephone links.

139. (New) The system of claim 131 wherein the communication path is a direct Internet connection to the world-wide web.

140. (New) The system of claim 131 wherein the web browser is embodied in specialized television hardware.

141. (New) The system of claim 131 wherein the web browser is embodied in specialized telephone system hardware.

142. (New) A system for providing a web page for an oscilloscope, comprising:

(a) an oscilloscope web server mechanism, including:

a web server that generates an oscilloscope web page which enables control functions for the oscilloscope, the web server being embedded in the oscilloscope;

a network interface embedded in the oscilloscope and coupled to the web server;

a monitor embedded in the oscilloscope and coupled to the web server, wherein the monitor controls device-specific functions of the oscilloscope and monitors a set of information pertaining to the oscilloscope; and

a control/monitor path coupled to the monitor;

(b) a communication path coupled to the network interface; and

(c) a web browser coupled to the communication path for rendering the oscilloscope web page.

143. (New) The system of claim 142 wherein the communication path is a home-based network.

144. (New) The system of claim 142 wherein the communication path is a home-based network, and wherein home-based network includes twisted pair communication links.

145. (New) The system of claim 142 wherein the communication path is a local area network.

146. (New) The system of claim 142 wherein the communication path includes power line communication links.

147. (New) The system of claim 142 wherein the communication path includes radio frequency communication links.

148. (New) The system of claim 142 wherein the communication path includes infrared communication links.

149. (New) The system of claim 142 wherein the communication path includes telephone lines and cellular telephone links.

150. (New) The system of claim 142 wherein the communication path is a direct Internet connection to the world-wide web.

151. (New) The system of claim 142 wherein the web browser is embodied in specialized television hardware.

152. (New) The system of claim 142 wherein the web browser is embodied in specialized telephone system hardware.

153. (New) A system for providing a web page for a spectrum analyzer, comprising:

(a) a spectrum analyzer web server mechanism, including:

a web server that generates a spectrum analyzer web page which enables control functions for the spectrum analyzer, the web server being embedded in the spectrum analyzer;

a network interface embedded in the spectrum analyzer and coupled to the web server;

a monitor embedded in the spectrum analyzer and coupled to the web server, wherein the monitor controls device-specific functions of the spectrum analyzer and monitors a set of information pertaining to the spectrum analyzer; and

a control/monitor path coupled to the monitor;

(b) a communication path coupled to the network interface; and

(c) a web browser coupled to the communication path for rendering the spectrum analyzer web page.

154. (New) The system of claim 153 wherein the communication path is a home-based network.

155. (New) The system of claim 153 wherein the communication path is a home-based network, and wherein home-based network includes twisted pair communication links.

156. (New) The system of claim 153 wherein the communication path is a local area network.

157. (New) The system of claim 153 wherein the communication path includes power line communication links.

158. (New) The system of claim 153 wherein the communication path includes radio frequency communication links.

159. (New) The system of claim 153 wherein the communication path includes infrared communication links.

160. (New) The system of claim 153 wherein the communication path includes telephone lines and cellular telephone links.

161. (New) The system of claim 153 wherein the communication path is a direct Internet connection to the world-wide web.

162. (New) The system of claim 153 wherein the web browser is embodied in specialized television hardware.

163. (New) The system of claim 153 wherein the web browser is embodied in specialized telephone system hardware.